

Atty. Dkt. No. 035451-0180 (3728.Palm)

REMARKS

Claims 1-29 remain pending in this application. Applicants respectfully favorable reconsideration of the present application in view of the reasons that follow.

A detailed listing of all claims that are in the application is presented, with an appropriate status identifier for each.

Claim Rejections – 35 U.S.C. § 103(a)

- a. **Rejection of claims 1, 6, and 18-19 based on Kim in view of Kung and further in view of Mäkelä et al.**

In section 2 of the Office Action, claims 1, 6, and 18-19 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Kim (U.S. Patent No. 6,262,785) in view of Kung (U.S. Patent No. 6,567,101) and further in view of Mäkelä et al. (U.S. Patent No. 6,047,196).

i. **Claims 1 and 6**

With regard to claim 1, Applicants respectfully submit that the cited combination of Kim in view of Kung and further in view of Mäkelä et al. fails to disclose all of the elements of claim 1 as combined therein. Specifically, claim 1 recites “a sensor coupled to the processor, the sensor configured to provide a signal representative of the size of the display.” The cited combination of Kim in view of Kung and further in view of Mäkelä et al. does not teach, disclose, or suggest “a sensor coupled to the processor, the sensor configured to provide a signal representative of the size of the display” as included in the combination of elements of claim 1.

The Office Action correctly acknowledges that “Kim does not teach a sensor coupled to the processor such that the sensor is configured to provide a signal representative of the size of the display.” However, the Office Action states in response to Applicants’ arguments filed December 21, 2004 that “Kung teaches positional sensors detecting changes in the orientation of the digital information appliance with respect to the surrounding environment,” and maintains the assertion that “[o]ne would have been motivated in view of the suggestion in Kung that the

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sensing plate (102) is functionally equivalent to the desired sensor” because it “helps detect the expansion of the display screen as taught by Kung.” Kung, however, discloses only that “[t]he touch screen comprises a display panel 104, a sensing plate 102, a display control 106, and a pressure detector 108,” that “[t]he display panel 104 is used to display the image,” and that [t]he display control 106 controls the image shown on the display panel 104, and zooms in on a portion of the image according to the position signal generated by the touch sensor.” Col. 2, lines 50-65 (emphasis added). The sensing plate 102 is used to generate a position signal indicating a portion of the image to be expanded inside a variable display frame, and has nothing to do with the size of display panel 104 itself. In contrast, the sensor of claim 1 is for sensing the expansion (and thus the size) of an expandable display from a first size to a second size, rather than sensing a portion of displayed information, such as an image, to be expanded within a display. Accordingly, Kung fails to disclose “a sensor coupled to the processor, the sensor configured to provide a signal representative of the size of the display” as included in the combination of elements of claim 1. As to Mäkelä et al., it fails to disclose any of the elements of claim 1 mentioned above that are lacking in Kim and Kung. Thus, the cited combination of Kim in view of Kung and further in view of Mäkelä et al. does not teach, disclose, or suggest “a sensor coupled to the processor, the sensor configured to provide a signal representative of the size of the display,” and particularly not as part of a “portable electronic device” when combined with the other elements of claim 1.

Applicants further submit that there is no suggestion or motivation for one of ordinary skill in the art regarding the desirability of combining the teachings of Kim, Kung, and Mäkelä et al. to somehow arrive at the subject matter of claim 1. The nature of the problem to be solved by the expandable display taught by Applicants’ specification was the small size of display screens for portable electronic devices. As such, claim 1 is directed to a display expandable from a first size to a second size and having a sensor configured to provide a signal representative of the size of the expandable display. In contrast, the sensing plate disclosed in Kung is used to generate a position signal indicating a portion of the image to be expanded inside a variable display frame, and has nothing to do with the overcoming the small size of the display panel itself.

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Accordingly, it would not have provided any advantage for Applicants to be concerned with a variable display frame or a sensor for indicating a portion of an image to be magnified inside the variable display frame. Thus, the desirability for one of ordinary skill in the art to combine the teachings of Kim, Kung, and Mäkelä et al. to somehow arrive at the subject matter of claim 1 does not exist.

Accordingly, Applicants request that the rejection of claim 1 under 35 U.S.C. § 103(a) be withdrawn. Additionally, claim 6 depends from claim 1 and is thus patentable over the cited combination of references for at least the same reasons as claim 1, and Applicants further request that the rejection of claim 6 under 35 U.S.C. § 103(a) be withdrawn as well.

ii. Claims 18-19

With regard to claim 18, Applicants respectfully submit that the cited combination of Kim in view of Kung and further in view of Mäkelä et al. fails to disclose all of the elements of claim 18 as combined therein. Specifically, claim 18 recites "a sensor configured to provide a configuration signal representative of the display being in one of the first configuration and the second configuration when the configuration is physically changed from the first configuration to the second configuration." The cited combination of Kim in view of Kung and further in view of Mäkelä et al. does not teach, disclose, or suggest "a sensor configured to provide a configuration signal representative of the display being in one of the first configuration and the second configuration when the configuration is physically changed from the first configuration to the second configuration" as included in the combination of elements of claim 18.

The Office Action correctly acknowledges that "Kim does not teach a sensor coupled to the processor such that the sensor is configured to provide a signal representative of the size of the display." However, the Office Action states in response to Applicants' arguments filed December 21, 2004 that "Kung teaches positional sensors detecting changes in the orientation of the digital information appliance with respect to the surrounding environment," and maintains the assertion that "[o]ne would have been motivated in view of the suggestion in Kung that the

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sensing plate (102) is functionally equivalent to the desired sensor” because it “helps detect the expansion of the display screen as taught by Kung.” Kung, however, discloses only that “[t]he touch screen comprises a display panel 104, a sensing plate 102, a display control 106, and a pressure detector 108,” that “[t]he display panel 104 is used to display the image,” and that “[t]he display control 106 controls the image shown on the display panel 104, and zooms in on a portion of the image according to the position signal generated by the touch sensor.” Col. 2, lines 50-65 (emphasis added). The sensing plate 102 is used to generate a position signal indicating a portion of the image to be expanded inside a variable display frame, and has nothing to do with the size of display panel 104 itself. In contrast, the sensor of claim 18 is for sensing the expansion (and thus the size) of an expandable display from a first size to a second size, rather than sensing a portion of displayed information, such as an image, to be expanded within a display. Moreover, Applicants are describing and claiming the expandability of a physical object (i.e., a physical display) and not an image or variable display frame. Although the Office Action suggests in response to Applicants’ arguments of December 18, 2004 that Kim discloses physically resizing a display to a second size configuration, Applicants respectfully submit that the display of Kim has only one usable size, which is the display in the unfolded state, and thus cannot be physically “resized.” Accordingly, Kim and Kung fail to disclose “a sensor configured to provide a configuration signal representative of the display being in one of the first configuration and the second configuration when the configuration is physically changed from the first configuration to the second configuration” as included in the combination of elements of claim 18.

Applicants further submit that Kung discloses only that “[t]he display control 106 controls the image shown on the display panel 104, and zooms in on a portion of the image according to the position signal generated by the touch sensor.” Col. 2, lines 50-65 (emphasis added). Thus, the sensing plate disclosed in Kung is configured to generate a position signal that initiates expansion of a portion of the image inside the variable display frame in response to user input, as opposed to being configured to generate an indication of the size of the display panel in response to a physical expansion in size of the display panel, or even being configured to

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generate an indication of the size of the image within the variable display frame in response to an expansion in size of the image or the variable display frame. Accordingly, Kim and Kung fail to disclose "a sensor configured to provide a configuration signal representative of the display being in one of the first configuration and the second configuration when the configuration is physically changed from the first configuration to the second configuration" as included in the combination of elements of claim 18.

As to Mäkelä et al., it fails to disclose any of the elements of claim 18 mentioned above that are lacking in Kim and Kung. Thus, the cited combination of Kim in view of Kung and further in view of Mäkelä et al. does not teach, disclose, or suggest "a sensor configured to provide a configuration signal representative of the display being in one of the first configuration and the second configuration when the configuration is physically changed from the first configuration to the second configuration," and particularly not as part of a "display for an electronic device" when combined with the other elements of claim 18.

Applicants further submit that there is no suggestion or motivation for one of ordinary skill in the art regarding the desirability of combining the teachings of Kim, Kung, and Mäkelä et al. to somehow arrive at the subject matter of claim 18. The nature of the problem to be solved by the expandable display taught by Applicants' specification was the small size of display screens for portable electronic devices. As such, claim 18 is directed to a display expandable from a first size to a second size and having a sensor configured to provide a signal representative of the size of the expandable display. In contrast, the sensing plate disclosed in Kung is used to generate a position signal indicating a portion of the image to be expanded inside a variable display frame, and has nothing to do with the overcoming the small size of the display panel itself. Accordingly, it would not have provided any advantage for Applicants to be concerned with a variable display frame or a sensor for indicating a portion of an image to be magnified inside the variable display frame. Thus, the desirability for one of ordinary skill in the art to combine the teachings of Kim, Kung, and Mäkelä et al. to somehow arrive at the subject matter of claim 18 does not exist.

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Accordingly, Applicants request that the rejection of claim 18 under 35 U.S.C. § 103(a) be withdrawn. Additionally, claim 19 depends from claim 18 and is thus patentable over the cited combination of references for at least the same reasons as claim 18, and Applicants further request that the rejection of claim 19 under 35 U.S.C. § 103(a) be withdrawn as well.

b. Rejection of claims 7-8 and 20 based on Kim in view of Kung and further in view of Mäkelä et al. and further in view of Macuka

In section 3 of the Office Action, claims 7-8 and 20 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Kim in view of Kung, and further in view of Mäkelä, and further in view of Macuka (U.S. Patent No. 4,171,585). Claims 7 and 8 depend from claim 1 and claim 20 depends from claim 18. As stated above, the cited combination of Kim in view of Kung and further in view of Mäkelä et al. fails to disclose the subject matter of claim 1 or claim 18. As to Macuka, it fails to disclose any of the elements mentioned above that are lacking in the combination of Kim in view of Kung, and further in view of Mäkelä et al. Because claims 7 and 8 depend from claim 1 and claim 20 depends from claim 18, and because the cited combination of Kim in view of Kung, and further in view of Mäkelä, and further in view of Macuka et al. fails to disclose the subject matter of claim 1 or claim 18, claims 7-8 and 20 are patentable over the cited combination of references for at least the same reasons as claims 1 and 18 respectively. Furthermore, claims 7-8 and 20 are patentable over the cited combination of references for the additional reason that none of these references teaches, discloses, or suggests the rollable display recited in claims 7-8 and 20 as part of a portable electronic device. Macuka teaches a device for displaying paper goods, such as a rolled up map or blueprint, that would never be coupled to a display controller or computing electronics. The remaining references in the cited combination clearly do not disclose the claimed rollable display. Accordingly, Applicants request that the rejection of these claims under 35 U.S.C. § 103(a) be withdrawn.

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c. Rejection of claims 2-5, 14-17, and 26-29 based on Kim in view of Kung and further in view of Mäkelä et al. and further in view of Kung et al.

In section 4 of the Office Action, claims 2-5, 14-17, and 26-29 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Kim in view of Kung, and further in view of Mäkelä, and further in view of Kung et al. (U.S. Patent No. 6,570,583).

i. Claims 2-5

Claims 2-5 depend from claim 1. As stated above, the cited combination of Kim in view of Kung and further in view of Mäkelä et al. fails to disclose the subject matter of claim 1. As to Kung et al., it fails to disclose any of the elements mentioned above that are lacking in the combination of Kim in view of Kung, and further in view of Mäkelä et al. Because claims 2-5 depend from claim 1, and because the cited combination of Kim in view of Kung, and further in view of Mäkelä, and further in view of Kung et al. fails to disclose the subject matter of claim 1, claims 2-5 are patentable over the cited combination of references for at least the same reasons as claim 1. Accordingly, Applicants request that the rejection of claims 2-5 under 35 U.S.C. § 103(a) be withdrawn.

ii. Claims 14-17

With regard to claim 14, Applicants respectfully submit that the cited combination of Kim in view of Kung and further in view of Mäkelä et al. and further in view of Kung et al. fails to disclose all of the steps of claim 14 as combined therein. Specifically, claim 14 recites "physically resizing the display to a second size configuration" and "sensing, automatically, the second size configuration of the display." The cited combination of Kim in view of Kung and further in view of Mäkelä et al. does not teach, disclose, or suggest "physically resizing the display to a second size configuration" and "sensing, automatically, the second size configuration of the display" as included in the combination of steps of claim 14.

The Office Action states that "regarding claim 14 ... Kim, Kung, and Makela have been discussed," that "Kim does not teach a means of reformatting a displayed image," and that "Kung

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et al. show a display program (37) determining the contents of the display (34), which must be scrolled down and reformatted to display a new line of information (32). Thus, the Office Action implies that the remaining steps of claim 14 are disclosed by the combination of Kim in view of Kung and further in view of Mäkelä et al. However, as discussed above with regard to claims 1 and 18, Kim, Kung, and Mäkelä et al. do not teach, disclose, or suggest “physically resizing the display to a second size configuration.” Furthermore, Kim, Kung, and Mäkelä et al. do not teach, disclose, or suggest “sensing, automatically, the second size configuration of the display.” Specifically, Kung discloses only that “[t]he display control 106 controls the image shown on the display panel 104, and zooms in on a portion of the image according to the position signal generated by the touch sensor.” Col. 2, lines 50-65. The sensing plate disclosed in Kung is configured to generate a position signal that initiates expansion of a portion of the image inside the variable display frame after a user provides input regarding a desired size of the image in the variable display frame, as opposed to being configured to automatically sense the size of the display panel in response to a physical expansion in size of the display panel.

As to Kung et al., it fails to disclose any of the steps of claim 14 mentioned above that are lacking in Kim, Kung, and Mäkelä et al. For example, Kung et al. discloses only adjusting the size or amount of text or icons in a display from as opposed to a physical resizing of a display. Thus, the cited combination of Kim in view of Kung and further in view of Mäkelä et al. and further in view of Kung et al. does not teach, disclose, or suggest “physically resizing the display to a second size configuration” and “sensing, automatically, the second size configuration of the display” when combined with the other steps of claim 14.

Applicants further submit that there is no suggestion or motivation for one of ordinary skill in the art regarding the desirability of combining the teachings of Kim, Kung, Mäkelä et al., and Kung et al. to somehow arrive at the subject matter of claim 14 for similar reasons as discussed above with regard to claims 1 and 18. Accordingly, Applicants request that the rejection of claim 14 under 35 U.S.C. § 103(a) be withdrawn. Additionally, claims 15-17 depend from claim 14 and are thus patentable over the cited combination of references for at least the

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same reasons as claim 14, and Applicants further request that the rejection of claims 15-17 under 35 U.S.C. § 103(a) be withdrawn as well.

iii. Claims 26-29

With regard to claim 26, Applicants respectfully submit that the cited combination of Kim in view of Kung and further in view of Mäkelä et al. and further in view of Kung et al. fails to disclose all of the elements of claim 26 as combined therein. Specifically, claim 26 recites “means for physically resizing the display to a second size configuration” and “means for sensing, automatically, the second size configuration of the display.” The cited combination of Kim in view of Kung and further in view of Mäkelä et al. does not teach, disclose, or suggest “means for physically resizing the display to a second size configuration” and “means for sensing, automatically, the second size configuration of the display” as included in the combination of elements of claim 26.

The Office Action states that “regarding ... claim 26 Kim, Kung, and Makela have been discussed,” that “Kim does not teach a means of reformatting a displayed image,” and that “Kung et al. show a display program (37) determining the contents of the display (34), which must be scrolled down and reformatted to display a new line of information (32). Thus, the Office Action implies that the remaining elements of claim 26 are disclosed by the combination of Kim in view of Kung and further in view of Mäkelä et al. However, as discussed above with regard to claims 1, 14, and 18, Kim, Kung, and Mäkelä et al. do not teach, disclose, or suggest “means for physically resizing the display to a second size configuration.” Furthermore, Kim, Kung, and Mäkelä et al. do not teach, disclose, or suggest “means for sensing, automatically, the second size configuration of the display.” Specifically, Kung discloses only that “[t]he display control 106 controls the image shown on the display panel 104, and zooms in on a portion of the image according to the position signal generated by the touch sensor.” Col. 2, lines 50-65. Thus, the sensing plate disclosed in Kung is configured to generate a position signal that initiates expansion of a portion of the image inside the variable display frame after a user provides input regarding a desired size of the image in the variable display frame, as opposed to being

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configured to automatically sense the size of the display panel in response to a physical expansion in size of the display panel.

As to Kung et al., it fails to disclose any of the elements of claim 26 mentioned above that are lacking in Kim, Kung, and Mäkelä et al. For example, Kung et al. discloses only adjusting the size or amount of text or icons in a display from as opposed to a physical resizing of a display. Thus, the cited combination of Kim in view of Kung and further in view of Mäkelä et al. and further in view of Kung et al. does not teach, disclose, or suggest "means for physically resizing the display to a second size configuration" and "means for sensing, automatically, the second size configuration of the display" when combined with the other elements of claim 26.

Applicants further submit that there is no suggestion or motivation for one of ordinary skill in the art regarding the desirability of combining the teachings of Kim, Kung, Mäkelä et al., and Kung et al. to somehow arrive at the subject matter of claim 26 for similar reasons as discussed above with regard to claims 1, 14, and 18. Accordingly, Applicants request that the rejection of claim 26 under 35 U.S.C. § 103(a) be withdrawn. Additionally, claims 27-29 depend from claim 26 and are thus patentable over the cited combination of references for at least the same reasons as claim 26, and Applicants further request that the rejection of claims 27-29 under 35 U.S.C. § 103(a) be withdrawn as well.

d. Rejection of claims 9-13 and 21-25 based on Kim in view of Kung and further in view of Mäkelä et al. and further in view of Petrich et al.

In section 5 of the Office Action, claims 9-13 and 21-25 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Kim in view of Kung, and further in view of Mäkelä, and further in view of Petrich et al. (U.S. Patent No. 6,104,379). Claims 9-13 depend from claim 1 and claims 21-25 depend from claim 18. As stated above, the cited combination of Kim in view of Kung and further in view of Mäkelä et al. fails to disclose the subject matter of claim 1 or claim 18. As to Petrich et al., it fails to disclose any of the elements mentioned above that are lacking in the combination of Kim in view of Kung, and further in view of Mäkelä et al. Because

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claims 9-13 depend from claim 1 and claims 21-25 depends from claim 18, and because the cited combination of Kim in view of Kung, and further in view of Mäkelä, and further in view of Petrich et al. fails to disclose the subject matter of claim 1 or claim 18, claims 9-13 and claims 21-25 are patentable over the cited combination of references for at least the same reasons as claims 1 and 18 respectively. Furthermore, claims 9-13 and 21-25 are patentable over the cited combination of references for the additional reason that there is no teaching or suggestion in Petrich et al. that would suggest the use of or benefit of using a variety of sensors in the expandable display devices of claims 9-13 and 21-25. Petrich et al. simply discloses the use of a variety of sensors for human interaction with a display to manipulate objects being shown on a display screen, as opposed to use of sensors to communicate information about a change in size of an expandable display to a computer. There is no logical connection between Petrich et al. and the subject matter of claims 9-13 and 21-25. Accordingly, Applicants request that the rejection of claims 9-13 and 21-25 under 35 U.S.C. § 103(a) be withdrawn.

Conclusion

Applicant believes that the present application is now in condition for allowance. Favorable reconsideration of the application as amended is respectfully requested.

The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 06-1447. Should no proper payment be enclosed herewith, as by a check being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 06-1447.

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If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicant hereby petitions for such extension under 37 C.F.R. §1.136 and authorizes payment of any such extensions fees to Deposit Account No. 06-1447.

Respectfully submitted,

Date 8/17/2005

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